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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LIN, WEN TAI

ART UNIT

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2154

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/632,484	Applicant(s) JALAN ET AL.	
	Examiner Wen-Tai Lin	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,9-17,21-23 and 25-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-7, 9-17, 21-23, and 25-41, 43-51 and 53-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 42,52 and 63 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 5-7, 9-17, 21-23, and 25-63 are presented for examination. Claims 33-63 are newly added.

Restriction

2. Restriction to one of the invention is required under 35 U.S.C. 121 because the invention contains two different species, which are independent or distinct because:

I. Claim 1, 5-7, 9-17, 21-23, and 25-41, 43-51 and 53-62, are drawn to packet framing and transmission of information, classified in class 709, subclass.

II. Claims 42, 52 and 63, are drawn to network access regulating, classified in class 709, subclass 225.

3. Since claims 42, 52 and 63 are added by amendment following action by the examiner, Applicant is required to restrict the claims to the invention previously claimed (see 37 CFR 1.145 and MPEP 818.01 and 818.02(a)).

4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

8. Claims 36-39, 43-52 and 57-60 is/are objected to because the following terms lack antecedent basis:

in claim(s) 50: "the second network";

in claim(s) 37-39, 47-49 and 58-60: "the ip multicast routing protocol";

in claim(s) 43-44, 46, 49 and 51: "the virtual private lan service";

in claim(s) 36, 46 and 57: "the association"; and

in claim(s) 36: "the internet protocol multicast group address".

Claim Rejections - 35 USC § 102

9. Claims 1, 5, 9-11, 13-17, 21, 25-27, 29-34, 37-39, 41, 43-44, 47-49, 51, 53-55, 58-60 and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiget et al.[U.S. Pat. 6640251].

10. As to claim 1, Wiget teaches the invention as claimed including: a method for providing, in a service provider's network, a multicast capability for a customer packet of a virtual private LAN service [e.g., Abstract; col.3, lines 29-39; Figs. 1a and 1b], comprising:

assigning the virtual private LAN service an Internet Protocol (IP) multicast group address in a private domain of the service provider's network [e.g., col.4, lines 17-25 and 48-50];

at a provider edge device [e.g., a configured IP VPN interface; 13-16, Fig.1a; col.2, lines 65-67] associated with the virtual private LAN service [e.g., col.4, lines 50-56], encapsulating the customer packet of the virtual private LAN service in an IP packet designating the IP multicast group address [e.g., Figs. 2a and 2b];

transmitting the IP packet over the service provider's network an IP multicast routing protocol from the provider edge device to a plurality of other provider edge devices associated with the virtual private LAN service [e.g., col.5, lines 24-32]; and

at each of the other provider edge devices associated with the virtual private LAN service, upon receiving the IP packet, recovering the customer packet [e.g., col.5, lines 57-65].

11. As to claim 5, Wiget further teaches that the Internet Protocol multicast group address associated with the virtual private LAN service is selected from a range set aside by the service provider for use with virtual private LAN services [e.g., col.3, lines 1-4].

12. As to claim 9, Wiget further teaches that the IP multicast routing protocol comprises a source-based routing protocol [e.g., col.7, lines 19-25; i.e., Ethernet protocol is a source-based routing protocol].

13. As to claim 10, Wiget further teaches that the IP multicast routing protocol comprises a core-based routing protocol [e.g., col. 8, lines 3-9; e.g., IPsec is a core-based routing protocol].

14. As to claim 11, Wiget further teaches that the IP multicast routing protocol creates a distribution tree for distributing the IP encapsulated customer packet for the virtual private LAN service [e.g., col.2, lines 43- 47].

15. As to claim 13, Wiget further teaches that the service provider provides the virtual private LAN service in the context of a Layer 2 virtual private network [e.g., col. 3, lines 10-15].

16. As to claim 14, Wiget teaches that the method further comprises receiving the customer packet at the provider edge device originating from a customer edge device of a virtual LAN [e.g., Figs. 1a and 1b and Figs. 4-5].

17. As to claims 15-16, Wiget teaches that the method further comprises accepting into the service provider's network an IP packet for the virtual private LAN service only from the provider edge devices associated with the virtual private LAN service, and at each of the other provider edge device, forwarding the customer packet to a customer edge device of a virtual LAN. [13-16, Fig. 1a; col.3, lines 41-47; col.2, lines 65-67].

18. As to claims 17, 21, 25-27, 29-34, 37-39, 41, 43-44, 47-49, 51, 53-55, 58-60 and 62, since the features of these claims can also be found in claims 1, 5, 9-11 and 13-16, they are rejected for the same reasons set forth in the rejection of claims 1, 5, 9-11 and 13-16 above.

Claim Rejections - 35 USC § 103

19. Claims 6, 22, 35, 45 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiget et al.(hereafter "Wiget")[U.S. Pat. 6640251], as applied to claims 1, 5, 9-11, 13-17, 21, 25-27, 29-34, 37-39, 41, 43-44, 47-49, 51, 53-55, 58-60 and 62 above.

20. As to claim 6, Wiget does not specifically teach that the range set aside by the service, provider is selected from a range having an administrative scope local to the service provider's network.

21. However, Wiget teaches that each tunnel endpoint has an address assigned out of the Provider address space [col.3, lines 1-4]. Thus, it is obvious that each IP backbone provider must also have selected a range of IP multicast group addresses, allocated within each provider's address space, to cover all the tunnel endpoints it intends to interconnect because the range of IP multicast group addresses competes against the general IP address space allocated to each service provider and a range meeting an administrative scope local to the service provider's network would optimize the utilization of each provider's IP address space.

22. As to claims 22, 35, 45 and 56, since the features of these claims can also be found in claims 1, 5-6, 17, 21, 33-34, 43-44, 53 and 55, they are rejected for the same reasons set forth in the rejection of claims 1, 5-6, 17, 21, 33-34, 43-44, 53 and 55 above.

23. Claims 7, 12, 23, 28, 36, 40, 46, 50, 57 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiget et al.(hereafter "Wiget") [U.S. Pat. 6640251], as applied to claims 1, 5-6, 9-11, 13-17, 21-22, 25-27, 29-35, 37-39, 41, 43-45, 47-49, 51, 53-56, 58-60 and 62 above, further in view of Lee [U.S. PGPub 20040165600].

24. As to claim 7, Wiget does not specifically teach that the method further comprises distributing the Internet Protocol multicast group address using a name server.

However, in the same field of endeavor, Lee teaches using a domain name server (DNS) to obtain remote site addresses.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Lee's teaching in Wiget's system because DNS already exists in the Internet world and it would be efficient to add the IP multicast group addresses search as part of the globally available DNS service.

25. As to claim 12, Lee teaches that the method further comprises providing the virtual private LAN service in the service provider's network using an Internet Protocol/Multi-protocol label switching service [e.g., paragraph 15 and claim 4].

26. As to claims 23, 28, 36, 40, 46, 50, 57 and 61, since the features of these claims can also be found in claims 1, 7, 12, 17, 33, 43 and 53, they are rejected for the same reasons set forth in the rejection of claims 1, 7, 12, 17, 33, 43 and 53 above.

27. Applicant's arguments with respect to claims 1-32 on 11/27/07 have been considered but are moot in view of the new ground(s) of rejection.

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

29. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300 for official communications; and

(571) 273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

February 21, 2008

/Wen-Tai Lin/

Primary Examiner, Art Unit 2154